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THREE-YEAR MBA PROGRAM

THE CHINESE UNIVERSITY OF HONG KONG

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IMPLEMENTATION OF TQM-AN EXPERIENCE OF  
A LONG ESTABLISHED CHINESE GROUP OF COMPANIES

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MBA PROJECT REPORT

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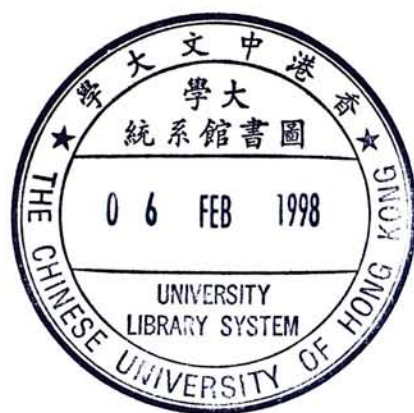
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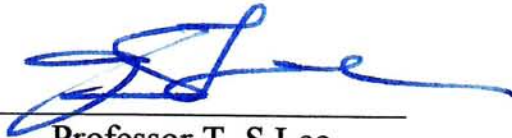


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## ABSTRACT

Quality has become the common language of international business. The most successful firms of the 1990s would be those pursuing continuous improvement in quality as the main strategy in sustaining their competitive edges in the marketplace. Competition is imperative in the business world. This is particularly keen nowadays when competition is ever increasing. The only way that a firm can gain competitive edge is by ensuring that what it offers not only meets, but also exceeds, the expectations of the customers. To cope with intense market competition, even those long established firms with very successful track records and highly regarded goodwill have to adjust their business strategies and management principles in order to retain their competitive advantages in the marketplace.

A long established Chinese family owned trading Group (X & Y Group) with more than 43 years' presence in Hong Kong is actively seeking effective and efficient ways to confront with strong challenges from competitors. Since the mid 1980s, product goodwill and brand loyalty, the two most important product advantages enjoyed by the company for many years, have diminished unintentionally but continuously. Recognizing the importance of quality improvement and excited by the stories of those firms such as IBM, Motorola, Federal Express and Rank Xerox that had achieved financial success through quality improvement, top management of X & Y Group decided to pursue quality as the main business strategy in order to regain her lost market share. Quality

programmes of X & Y Group could be divided into two phases. The first phase covered the period from early 1992 to end of 1993 when seven out of the total nine member companies took about 18 to 24 months to obtain ISO 9000 accreditation. The second phrase started at early 1994 when the long journey of implementing Total Quality Management (TQM) began.

Using self-assessment approach with questions designed basing on evaluation criteria similar to those covered by HKMA Quality Award (which are adapted from the Baldrige Award in US) and conducted by face-to-face interviews, this dissertation is designed to ascertain and compare the relative progress of the nine member companies of the X & Y Group in implementing the TQM programme since 1994. It is also intended to identify the main problems and difficulties encountered by the studied companies, and to analyze their underlying causes from the perspective of commonly cited critical success factors supported by the results and findings of most empirical studies and researches on TQM.

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### CHAPTER I

#### INTRODUCTION

Throughout most of the world today, business is faced with more customers who have rising standards of living thereby creating more demand for goods and services. To get the most from the growing market, companies need to discipline their actions in a more organized manner than ever before. Change and competition these days come so fast that companies must hurry and tailor their strategies in order to maintain their competitive edges in their marketplace.

In recent times, product advantages of one brand over one another have narrowed and all the major manufacturers now use robots and computers, for example, to ensure products are made to consistently high standards. Nowadays, it is essential to add value by marketing products enveloped by services that customers find attractive. Today, it is often mainly services that differentiate one brand's products from another. Service standards and product quality need to be constantly improved to meet the demands that ever-increasing knowledge and awareness create in customers.

With a long established history in Hong Kong, *N & P brands* (phony names) and other sister brands of electrical appliances and consumer electronics products have secured considerable brand loyalty and goodwill among customers, with peaks in 1980s. To some customers, *N & P brands* mean quality and durability. Moreover, their



extensive and comprehensive product ranges are beyond comparison of any rivals in the market and has also enhanced the confidence of end users. Because of these product advantages, *N & P brands* have dominated the local market for many years.

However, in recent years, X & Y Group (the sole agent of *N & P brands* and their sister brands, a Chinese family controlled establishment in Hong Kong) has encountered increasing challenge by other suppliers and threatening market share. The product advantage gap between *N & P brands* and other brands have narrowed and customer behaviour has changed considerably. Electrical appliances and consumer electronics products marketed by X & Y Group are consumer products and hence demands for them are vulnerable to fluctuating economic conditions. Today, customers look for product specifications, advanced features rather than durability and reliability. Hi-tech or semi hi-tech consumer electronics products either outdated very soon or facing very short product life cycle. Currently, X & Y Group is encountering great difficulties in planning product obsolescence to match with market needs especially for those audio and video products. This is because product development is relatively slow for *N & P brands* as compared to other competitors mainly due to the conservative culture of their Japanese supplier, who prefers to be a follower to an innovator.

Usually reckoned by other rivals as the market leader, *N & P brands* are now confronting with tough competitors, diminishing brand loyalty and consumer preference. The major competitors come from those Japanese, Korean and European brands. Most of them are well equipped and positioned to compete with *N & P brands*. In view of increasing competition and shrinking market share, top management of X & Y Group is committed to devote all resources possible to keep the Group stay ahead of others. It is believed that X & Y Group could retain its superior market position by

having quality products, competent staff, sophisticated marketing strategies — all geared towards achieving increasing customer satisfaction. The collection of activities and perspectives involved in doing this make up the concept of Total Quality Management (TQM).

### Company Background

In 1953, Mr. M established X Y Hong (the Company) to be the sole agent in Hong Kong and Macau for *N & P brands* products manufactured by M Electric of Japan (MEI), marking the opening page of a 43+ years success story. In 1957, the Company was appointed by V Company of Japan - a subsidiary of MEI, as sole agent for marketing and distribution of *J brand* (a sister brand of *N & P*) products in Hong Kong and Macau.

In 1960, X Y Hong changed its name to X Y Electronic Trading Co., Ltd. (XYET). In 1969, a subsidiary, X Y J Ltd. (XYJC) was established with specific task of marketing *J brand* products. In 1973, when the Company celebrated its 20th anniversary, X Y Advertising Co., Ltd. (XYAC) was established to undertake advertising and promotional activities for *N & P brands* and *J brand* products. In 1976, X Y Electric Works Co., Ltd. (XYEW) was established to promote *N & P* engineering equipment, construction and decoration materials as well as to undertake air-conditioning, electronic and security systems projects.

In 1980, X Y Electric Service Centre Ltd. (XYESC) was formed to take care of repair and maintenance services for *N & P brands* and *J brand* products. In June 1981, X Y Advertising Co., Ltd. set up T T D International Co., Ltd. (TTI) to trade as



an agent for advertising space of poster sites and display panels on main transportation systems. In July 1985, the XYET's Office Automatic Department became a subsidiary of the Group — X Y Technology Co., Ltd. (XYTEC). It is responsible for *N & P brands* office automation equipment, professional audio and video equipment and communication systems. In 1987, X Y Technology Co., Ltd. further expanded its business scope to include the office furniture. In 1988, X Y Electric Works Co., Ltd. was appointed the sole agent in Hong Kong and Macau for *K brand* (also sister brand of *N & P*) electric fans and ventilating fans manufactured by M & S Co., Ltd., a local subsidiary of M Electric of Japan.

In 1993, when X & Y Group celebrated its 40th anniversary, two new members were incorporated namely X Y Engineering Contracting Co., Ltd. (XYCON) and X Y Forwarders Co., Ltd. (XYFOR). X Y Engineering Contracting Co., Ltd. was formed by spinning off the Contracting Department and the Engineering Department of X Y Electric Works Co., Ltd., while X Y Forwarders Co., Ltd. was extended from the Warehousing & Delivery Department of X Y Electronic Trading Co., Ltd. to take care of the warehousing and transportation needs of sales companies. The nine major subsidiaries of X & Y Group as of today are listed as below:

<u>Company</u>	<u>Year of Incorporation</u>
(a) X Y Electronic Trading Co., Ltd. (XYET)	(1953)
(b) X Y J Ltd. (XYJC)	(1969)
(c) X Y Advertising Co., Ltd. (XYAC)	(1973)
(d) X Y Electric Works Co., Ltd. (XYEW)	(1976)
(e) X Y Electric Service Centre Ltd. (XYESC)	(1980)

- |   |        |
|---|--------|
| (f) T T D International Co., Ltd. (TTI)           | (1981) |
| (g) X Y Technology Co., Ltd. (XYTEC)              | (1985) |
| (h) X Y Forwarders Co., Ltd. (XYFOR)              | (1993) |
| (i) X Y Engineering Contracting Co., Ltd. (XYCON) | (1993) |

### From ISO 9000 Accreditation to TQM

Except X Y Advertising Co., Ltd. (XYAC) and T T D International Co., Ltd. (TTI) which are now still in the process of applying for ISO 9002 accreditation, all the other seven member companies of X & Y Group have already successfully obtained ISO 9000 certification. ISO 9000 certification provides a basis for the firm to establish quality systems on an internationally recognized level, a reference from which to judge future improvements, and a foundation for high quality assurance. On a more dynamic level, TQM creates an on-going process for improvements in quality, efficiency, and customer satisfaction. It is just a beginning for achieving ISO 9000 certification, but more importantly, TQM impels X & Y Group questing towards continuous quality improvement after the event. Comparing the two, the ISO 9000 standards stand as a static, narrowly focused approach to management of quality assurance. Nevertheless, when pursued as properly integrated step, ISO 9000 is indispensable to the efficient implementation of total quality<sup>(1)</sup>.

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<sup>(1)</sup> Liao, Ziqi; Cheung Michael T; Lai, Yin Y "ISO 9000 and its Integration with TQM," 95Engineering Management Conference, p.217



### Approach to Implementation of TQM

The approach adopted by X & Y Group in implementing TQM is basically top-down which is executed through the direction and leadership of the Quality Council at Group level, the Company Heads, Quality Board and the Quality Managers at company level. In a situation where there is a Group of Companies with the common objective of pursuing TQM, a Quality Council would normally be established to lead the implementation programme. In X & Y Group, a Group Quality Council is established which consists of senior people from different disciplines and be chaired by the Group Chief Executive. The members of the X & Y Group Quality Council are:

Group Chief Executive (Chairman)

Sales Director

Marketing Director

Human Resources Director

EDP (IT) Director

Finance Director

Training & Development Director

Service Director

These individuals are selected on the belief that they have a better-than-average understanding of and attitude to TQM principles. The Council is served as “technical advisor” to line management on quality. It becomes the quality conscience of the Group, and is responsible for coordinating training on quality and serves as an advisor to process improvement teams.

Top management commitment is always cited as an important attribute for the successful implementation of TQM programme in an organization. The Company

Heads must have extensive knowledge on TQM principles and practices. His or her commitment and support to the TQM philosophy is of utmost importance. He or she should actively involve acting as the leader in all TQM related activities. To assist the Company Head to lead the TQM implementation, a Quality Board is formed by selected senior personnel within each company. Under the direction of the Company Head, the Quality Board is responsible to monitor and control the progress of quality plan implementations. They meet regularly to review and report progress of the TQM programme.

The appointment of a Quality Manager to assist the Company Head and the Quality Board to carry out the quality implementation plan is practiced in X & Y Group of companies. The Quality Manager can be either part-time or full time. Usually, he or she is also a member of the company's Quality Board. The main duties of the Quality Manager are to assist the company's Quality Board to develop and implement quality plans geared to achieving the company's TQM targets in line with the company's business objectives. He or she is responsible for developing quality plans on his or her own initiative or as directed by the Quality Board, for its subsequent approval, ensuring that all such plans are relevant and contribute to the achievement of the company's business plan.

### Methodology

#### Purpose of Study

After a majority of the member companies of X & Y Group have successfully obtained ISO 9000 accreditation, top management decided to pursue TQM as the



second phase of long-term quality improvement programme. The purpose of this study is designed to ascertain the experience, and compare the relative progress of the nine member companies of the X & Y Group in implementing the TQM programme since 1994. It is also intended to identify the main problems and difficulties encountered and try to analyze their underlying causes from the perspective of common critical success factors identified and supported by the results and findings of most empirical studies and researches on TQM.

### Self-Assessment

Zaremba & Crew (1995) described that self-assessment is a comprehensive, systematic and regular review of an organization's activities and results against a model of excellence. It offers an organization an opportunity to learn about its strength and areas for improvement, what total quality means when applied to the organization and where the organization is on the road to quality. Brereton (1996) also said that although each organization is unique, the use of a recognized model will help quickly and effectively to carry out a self-assessment.

The process of self-assessment is the basis for all the major quality awards: in the USA this is the Baldrige award; in Japan the Deming prize; and in Europe the European Quality Award (EQA) based on the European model for total quality management.

The role and importance of organizational self-assessment has been clearly articulated by Conti (1993). He makes the key point that self-assessment does not signify that the assessment reflects the opinions of management. In fact, the main task

of management is to use it as a tool to get other to speak and to listen to them. Binnery (1992) also regarded self-assessment as an issue for board level attention if TQM is to contribute to real change through a shared understanding of how it fits with visions and strategy of the company.

An excellent and widely adopted approach to self-assessment is through the criteria for the Malcolm Baldrige National Quality Award from the United States. The 7 categories of criteria are :

- 1.0 Leadership
- 2.0 Information and analysis
- 3.0 Strategic quality planning
- 4.0 Human resource utilization
- 5.0 Quality assurance of products and services
- 6.0 Quality results
- 7.0 Customer satisfaction

In Hong Kong, the HKMA Quality Award, established by The Hong Kong Management Association in 1991, is modeled on the Malcolm Baldrige National Quality Award in United States. The Hong Kong Management Association (HKMA) was established in 1960. As a non-profit making professional organization, its mission is to improve the effectiveness and efficiency of management in Hong Kong. The criteria for the HKMA Quality Award (HKMA, 1995) are embodied in 7 categories which are more or less the same as the counterpart of the Baldrige Award. The 7 categories are:

1. Leadership



2. Information and analysis
3. Strategic quality planning
4. Human resources development and management
5. Management of process quality
6. Quality and operational result
7. Customer and satisfaction

In order to achieve the stated objective of this study as aforesaid, a self-assessment exercise was performed for each of the nine target companies of X & Y Group. The format of the self-assessment is based on questions specially designed to cover those similar evaluation criteria covered by HKMA Quality Award (which are adapted from the Baldrige Award in US). The main body of the questions is divided into six parts namely: "Mission and Objectives"; "Customer Focus and Satisfaction"; "Operational Performance and Process Improvement"; "Human Resources"; "Information and Analysis"; "Executive Leadership" with each part focusing on one or two main components of the seven criteria of the HKMA Award.

### Interviews

Company Heads and/or Quality Managers of each member companies of X & Y Group were invited to have a face-to-face interview to give answers and other relevant information for the self-assessment questions. Besides, a set of structured questions was also included and used as a vehicle mainly for obtaining views on those factors that are considered critical to the success of the TQM implementation programme. These questions are merged together with those used for the self-assessment exercise and grouped separately as part seven under the heading "Process

Review and Critical Success Factors for TQM". Sample of the questions that is being used in the interviews is attached to this report as Appendix 1.



### CHAPTER II

#### LITERATURE REVIEW

##### What is TQM

Besterfield, et al (1995) said that Total Quality Management (TQM) is an enhancement to the traditional way of doing business. It is a proven technique to guarantee survival in world-class competition. Only by changing the action of management will the culture and actions of an entire organization be transformed. TQM is for the most part common sense. Analyzing the three words, we have,

*Total* — Made up of whole

*Quality* — Degree of excellence a product or service provides

*Management* — Act, art, or manner of handling, controlling, directing, etc.

Therefore, TQM is the art of managing the whole to achieve excellence. The golden rule is a simple but effective way to explain it : Do unto others as you would have them do unto you.

##### What is Quality

When the expression “quality” is used, we usually think in terms of an excellent product or service that fulfills or exceeds our expectations. These expectations are

based on the intended use and the selling price. Quality has nine different dimensions for evaluation (Murray, 1995). These nine dimensions of quality are:

1. *Fitness for use* - the product serves the utility needed by the application of its intended use.
2. *Features* - the product has the ability to specify with ease a product variant to meet a specific need without adding unnecessary cost.
3. *Conformance* - the product meets specifications in terms of fit, form and function.
4. *Reliability* - the ability of the product to perform over time without breakdown or failure.
5. *Durability* - the ability of the product to last a long time.
6. *Serviceability* - the ability of the product to be easily and quickly maintained and/or repaired.
7. *Performance* - the product performs its intended function properly, effectively and efficiently.
8. *Aesthetic appeal* - how the product pleases in terms of appearance, and/or how it satisfy in terms of feeling in use.
9. *Robustness* - insensibility to common cause variability in the manufacturing process and to the expected range of operating conditions in operation.

These dimensions are somewhat independent; therefore, a product can be excellent in one dimension and average or poor in another. Very few, if any, products excel in all nine dimensions. Therefore, quality products can be determined by using a few of the dimensions of quality.



### The TQM Gurus

Total Quality is not just a single concept, but a number of related concepts which together create a comprehensive and different approach to doing business. Many people contributed in meaningful ways to the development of the various concepts that are known collectively as Total Quality. Of these, three have played major roles are W. Edwards Deming, Joseph M. Juran, and Philip B. Crosby. To these three many would add Armand V. Feigenbaum and a number of Japanese experts such as Shigeo Shingo and Taiichi Ohno.

W. Edwards Deming, quality's foremost preacher, died in 1993 at the age of 93, leaving behind an endless list of honors and achievements and a congregation of followers that continues to grow (Laszlo, 1994). It would be difficult to overstate Deming's contributions to the Total Quality movement. Many consider him the father of the movement. Specifically, the things he is most widely known are the Deming Cycle, his Fourteen Points, and the Seven Deadly Diseases (see Appendix 2).

Joseph M. Juran ranks near Deming in the contributions he has made to quality and the recognition he has received as a result. The Juran Institute, Inc. in Wilton, Connecticut is an international leader in conducting training, research, and consulting activities in the area of quality management. Quality-related materials produced by Juran have been translated into 14 different languages. Juran is recognized as "The man who taught Japan how to manage for quality."—*Business Week*. Juran is best known for the following contributions to the quality philosophy : Juran's Three Basic Steps to Progress, Juran's Ten Steps to Quality Improvement, the Pareto Principle, and the Juran's Trilogy (see Appendix 3).

Philip B. Crosby's corporate background includes 14 years as Director of Quality at ITT (1965-1979). He left ITT in 1979 to form Philip Crosby Associates, an international consulting firm on quality improvement, which he ran until 1992. He then retired as CEO to devote his time to lecturing on quality-related issues (Goetsch & Davis, 1995). Crosby who defines quality simply as conformance, is best known for his advocacy of zero-defects management and error prevention as opposed to pursuit of statistically acceptable levels of quality. He is also known for the fourteen steps to quality improvement, and for his "quality vaccine" which consists of three ingredients : determination, education, and implementation. Crosby's Fourteen Steps to Quality improvement are listed in Appendix 4.

### The Benefits of Implementing TQM

King (1993) said that when it is done right, TQM produces growth in market share, improves customer satisfaction, reduces costs, and superior design of new products in less time. Conway (1992) also addressed that during economic downturns, organizations should redouble their quality management efforts. Quality management is the key to withstanding economic decline. A down economy can provide quality management leaders with opportunities to realize permanent gains in market share. Total Quality Management (TQM) provides companies with the ability to lower costs, increase productivity, and deliver the products and services customers want at a reasonable price. TQM's core activity is identifying, quantifying, and eliminating the waste in work and work processes. Waste, the single most important cause of customer dissatisfaction, poor productivity, and high operating expenses, exists in 4 main forms : materials, capital, time, and lost sales or opportunities. Regardless of



economic conditions, successful TQM requires a culture change in which everyone from top management down works as a team to find and eliminate waste through continuous process improvement.

Wright (1988) has discussed the approach of Rank Xerox (UK) to the implementation of TQM. The company's domination and success during the 1960s and early 1970s did encourage the development of many bad habits. They developed a high costs of doing business, poor product reliability and an arrogant attitudes towards customers. When Japanese competitors entered the market with cheap, reliable and attractive products during the late 1970s and early 1980s, Rank Xerox (UK) lost substantial market share and began financial decline in a short period. In 1984, Rank Xerox (UK) started their TQM program and they called it "Leadership through Quality". As a result, they achieved substantial progress in quality improvement and regained their market share from the strong Japanese counterparts through dedication to TQM.

A study of 30 companies that have adopted the TQM philosophy for an average of 6 ½ years found that adoption of the TQM philosophy results in savings to the company (Kendrick, 1993). Key findings of the study showed that the following occurred after TQM implementation: 1. Average revenues increased 54.7%, or 8.3% annually, compared with an average annual increase of 4.2% for all US manufacturers. 2. Employment decreased 6.5%, compared with an increase of 8.8% in US employment. 3. The number of problem-solving teams and cross-functional problem-solving teams increased. 4. A 2% increase in personnel in research and development resulted in a 52% per year increase in new product development. 5. A full 97% of

those surveyed share information with suppliers, something they did not do before TQM.

The result of a General Accounting Office study in the impact of TQM on the performance of 20 companies show that companies that have adopted TQM practice have achieved an overall improvement in business performance (Shetty Y K, 1993). A majority of companies increased their average market share, increased product reliability, reduced order processing time, and experienced a decrease in customer complaints. Average cost savings of these companies attributable to quality-improvement programme ranged from \$1.3 million to \$116 million annually.

The subject of Total Quality management (TQM) is typically directed at manufacturers with the idea of convincing them that they need to introduce TQM. However, the technique is equally applicable to service industries and can be applied to education (Edwards, 1991). TQM can help higher education : 1. focus on the needs of the market, 2. achieve top-quality performance in all areas, 3. produce systems for achieving quality performance, 4. develop measures of achievement, 5. keep its institutions competitive, 6. develop team approaches, 7. improve communication, and 8. reward outstanding achievement.

Apart from generating financial benefits, the adoption of TQM program also produces intangible benefits. The quality program at Celanese Corp., US is based upon the 14-step program from Crosby Quality College (Starr, 1987). The program has fostered a corporate climate that encourages risks and creativity. Celanese feels that its quality program has achieved several important results : 1. greater emphasis on customer satisfaction, 2. more interaction across organizational levels and between



functions, 3. improved communication, 4. improved productivity through the use of teams, and 5. a higher degree of management visibility, involvement, and leadership.

### Elements of TQM

Although TQM becomes a popular label, there is no agreement on what are the essential elements of TQM. One widely available , comprehensive list is the criteria used by the National Institute of Standards and Technology to evaluate applications for the Malcolm Baldrige National Quality Award (MBNQA). As of the early 1990s, that became, in the opinion of J. M. Juran (1995), the most complete available definition of TQM. The intent of the Award is to promote : 1. awareness of quality and its impact on competitiveness, 2. understanding of the requirements for excellence in quality, and 3. sharing of information on successful strategies and benefits derived (Heaphy & Gruska, 1993). The MBNQA criteria contains 7 categories that together define total quality excellence. The categories are : 1. leadership, 2. information and analysis, 3. strategic quality planning, 4. human resource development, 5. process quality, 6. quality results, and 7. customer focus and satisfaction.

Weintraub (1993) said that companies that successfully implement total quality management (TQM) principles focus on 5 elements ( the 5 Pillars of Total Quality) : 1. customer satisfaction, 2. total involvement, 3. measurement, 4. systematic support, and 5. continuous improvement. Burr (1993) also identified 6 principles common to all manifestations of TQM which are : 1. start at the top, 2. require total involvement, 3. focus on the customer, 4. use teams, 5. require training for everyone, and 6. use tools to measure and follow progress. Moreover, the general principles that are common to many TQM implementation models are : 1. create a steering committee to oversee the

implementation process, 2. develop measures of quality and quality costs before the improvement program begins, 3. provide support to the teams, and 4. reward or celebrate success.

Exterbille (1996) emphasizes that communications is an essential element of a TQM approach. Without the right communications planning, in parallel with a TQM plan, the company's efforts will be condemned to die quickly.

### Tools and Models for TQM Implementation

To reach the goal of improved quality, a set of tools has been developed for use in controlling quality. There are 2 sets of TQM tools developed by management theorists (Rand, 1994) : the 7 basic quality control tools (7 Basic QC Tools) and the 7 quality management tools (7 New Tools). The 7 Basic QC Tools are designed to be easy to learn and apply. These tools include flowcharting, check sheets and control charts. The 7 New Tools are designed to help management in the quality planning process. They include affinity diagrams, systematic diagrams and arrow diagrams.

According to a survey conducted for publishing industry in US in 1994 (Anonymous, 1995), printers benefit from TQM. Of the 12 management tools listed in the survey, the ranking by the respondents is as follows : 1. mission statement, 2. empowerment, 3. customer surveys, 4. cross-functional teams, 5. departmental teams, 6. statistical process control, 7. just-in-time, 8. benchmarking, 9. performance pay, 10. re-engineering, 11. horizontal structure, and 12. ISO 9000.

Suggested by Aquino (1992), a typical TQM implementation process usually involves : 1. creating awareness on the need to change, 2. organizing and training top-



level committees to steer and support the process, 3. generating strategic and quality implementation plans, 4. organizing and training mid-level planning teams, 5. establishing measurement process that will identify progress toward the goal of excellence, and 6. building communication to maintain total involvement in TQM.

The US Department of Defense (DOD) has started an implementation phase of TQM in 1991 and the typical TQM model adopted can be described as a continuous feedback cycle, aiming at improving the quality of a product or a system with each cycle (McCarthy & Eishennawy, 1991). The model has 7 steps : 1. establish the management and cultural environment, 2. define the mission, 3. set performance improvement goals, 4. establish improvement projects and action plans, 5. implement projects with performance tools and methodology, 6. evaluate, and 7. review and recycle.

Weintraub (1993) introduced a model for TQM implementation which is based on 3 components : planning, internal implementation strategies, and external strategies. Implementation strategies fall into 11 categories, 8 internal and 3 external. The 8 internal implementation strategies are : 1. leadership and commitment, 2. infrastructure, 3. focus and roll-out, 4. measurement, 5. education, 6. resources, 7. information and communication, and 8. systems alignment. The 3 external implementation strategies are : 1. public responsibility, 2. customer alignment, and 3. supplier alignment.

Models and principles developed by quality gurus such as the Deming's 14 Points, the 14-step program developed by Philips Crosby, the PDCA (plan, do, check, act) cycle proposed by Dr. Deming are often used by companies as the reference

framework to guide their TQM implementation process. Organizations are also using the 7 criteria of the Malcolm Baldrige National Quality Award as an assessment framework to take a good look at the organizations and analyze where there are improvement opportunities as well as areas of excellence.

A study examined whether a firm's size affects its TQM implementation strategy (Ahire & Golhar, 1996) indicated that : 1. TQM implementation leads to better product quality. 2. There are no operational differences in TQM implementation attributable to firm size. 3. Small and large firms that produce high quality products implement TQM elements equally effectively. While small firms are constrained by their clout in market, inadequate resources, and lack of managerial expertise, that can utilize their relative strengths such as flexibility and innovation to implement TQM as effectively as large firms.

### Critical Success Factors for TQM Implementation

Solomon (1996) said that an organizational culture that is consistent with achieving long-term objectives is critical if total quality management (TQM) is to work. A synergy of management systems must be in place for TQM to work properly. A study was performed to ask respondents from 5 organizational levels in US, Mexico, Canada and Europe to evaluate the importance of 13 organizational factors critical for a successful implementation, and to indicate how well they were implementing each (Kendrick, 1993). These 13 factors are : 1. leadership commitment, 2. training, 3. alignment of organizational systems, 4. recognition and rewards, 5. performance/management appraisal, 6. empowerment/involvement, 7. measurement, 8. communication, 9. vision and values, 10. implementation/roll-out, 11. supplier



involvement, 12. customer focus, and 13. tools and techniques. North American survey respondents and European executives rated customer focus as the most important factor for success. Although ranking were different, the 3 groups of respondents rated the same factors among their top 6 including : customer focus, leadership commitment, vision/values, training, communication, and empowerment.

Breisch & Breisch (1990) said that TQM is a system composed of 3 potentially independent subsystems : employee involvement, customer focus, and the tools of quality. It is only when these critical subsystems operate synergistically that TQM is successful.

Jablonski (1992) emphasized that a customer focus is critical to quality management because the customer is the one who determines the level of quality delivered. If there is no perceived increase in value to the customer, there will be no quality improvement. A case study on Robinson & Wetmore Inc., US by Smith & Sibling (1994) highlighted that the process improvement is the backbone of a successful TQM program and must be clearly understood by all those involved. The critical steps of process improvement include : 1. Establish a team mission and vision. 2. Conduct customer surveys. 3. Create a flowchart of the process. 4. Formulate the improvement proposal. 5. Monitor/improve the process.

Brown (1994) stressed that investment in training is critical to the success of TQM. Introducing TQM calls for a strategy that integrates TQM training in basic and job skills, since all are linked. Unless training is integrated with other activities in the company, TQM will become yesterday's fad. Varian (1991) also said that good communication is vital to the success of the total quality process, especially when the

communication strategy is directed to audiences inside the organization. Nevertheless, communication strategy is the least understood and most poorly managed aspect of many TQM implementations. Pfau (1989) also pointed out that TQM is only effective when all activities and personnel in an organization are fully integrated into TQM implementation. Organizations implementing TQM require improved communications to support the improvement process. Each organization must tailor its approach to exploit its strength and concentrate on its weakness.

Two researchers, Deborah A. Weber and Peter Sorensen, have investigated the culture of 34 different organizations in US to determine the role of an organization's culture in the implementation of TQM (Morris, 1994). According to them, internal training and development within the organization play a key role not only in initiating TQM efforts, but also in sustaining them. Because of that role, companies that directly involve Human Resource Department in TQM implementation efforts are likely to find that the strategy increases their chances of success.

King (1993) also put forth 4 suggestions for successful TQM implementation. They are : 1. Decision making should be based on facts, not guts. 2. Decisions of top management should be based on 'market-in', meaning the customer should be placed first. 3. The source of corporate revenue and profit is rooted in quality. 4. Top management should study TQM before others in the company. Milas (1996) emphasized that of all the factors essential to the success of a total quality initiative, the cultivation of cooperation and motivation in the workforce ranks the most important. All levels of employees must buy into the TQM process at the inception, and continuously throughout the evolution of the improvement process.



Grant et al (1994) said that TQM is a challenge to conventional management techniques and to the theories that underlie them. TQM calls for systematic changes in management practice, including the redesign of work, the definition of management roles, and the reorientation of organizational goals. The companies that have been most successful in obtaining long-lasting performance benefits from TQM (Xerox, Hewlett-Packard, Nashua, Banc One and Allen-Bradley) have permitted their programs to drive systemwide change.

### Why TQM Programs Sometimes Fail

Francia Mathoney, an independent consultant and faculty member at Houston Baptist University addressed that when one look at the reasons why 70% of quality initiatives fail, they are almost all related to poor management (Kinni, 1995). Miller & Cangemi (1993) said that to be successful, TQM must involve all people within an organization and must receive customer feedback. There are a number of reasons why this may fail : 1. Managers may not delegate quality to involve everyone in the organization. 2. Appropriate consultants to implement the system are not properly evaluated. 3. There is a lack of employee involvement. 4. Management leadership places too much emphasis on cost cutting and profits, and not enough focus on customer service. 5. Communication with the workforce is poor. 6. There is resistance to change. Corrigan (1995) identified three prime causes for the failure of implementing TQM program. They are : 1. lack of constancy of purpose, 2. lack of adequate leadership, and 3. failure of pilot improvement teams. When TQM fails because of lack of constancy of purpose, the senior executives typically display one or all of the following traits : 1. overdelegation of TQM responsibility, 2. great initial

enthusiasm quickly followed by impatience, 3. an unwillingness to change their own behavior, and 4. lack of personal participation in the TQM effort.

Masters (1996) emphasized that the barriers to implementing TQM know no limits. Distinct barriers to TQM that are common to all types of organizations and within all management levels have been identified. The 8 that plague organizations most are: 1. lack of management commitment, 2. inability to change organizational culture, 3. improper planning, 4. lack of continuous training and education, 5. incompatible organizational structure and isolated individuals and departments, 6. paying inadequate attention to internal and external customers, 7. inadequate use of empowerment and teamwork, and 8. ineffective measurement techniques and lack of access to data and results.

### Is ISO 9000 a Prerequisite for TQM

Marash (1993) remarked that all quality programs - TQM, ISO 9000, and others - have one basic prerequisite for success - management commitment based on genuine understanding of the extent and nature of the process. The ISO 9000 series of standards is a useful entry key for an organization wishing to adopt a total quality program. Corrigan (1994) said that although the ISO 9000 standards and TQM supplement and support each other, they have different objectives, evaluation and management improvement processes, management and success goals. The ISO 9000 standards define the requirements of a prevention-based quality assurance system whereas TQM is a management philosophy that builds customer-driven learning organizations. ISO 900 could be a path to TQM as ISO 9000 could be integrated into TQM from the start. The quality system could be restructured into an ISO 9000



system as part of an initial assessment. Kailnosky (1990) also agreed that a company-specific total quality system can use ISO 9000 as a foundation upon which to build industry- and technology-specific requirements.

Liao et al (1995) shared the points of views with Corrigan and Kailnosky and suggested that ISO 9000 must be properly evaluated in the context of TQM. Though ISO 9000 provides basic guidelines for documenting work procedures and performs valuable service as a common language of quality, to be fully effective in achieving the firm's strategic objectives over time, ISO 9000 needs to be integrated with TQM. ISO 9000 certification provides a basis for the firm to establish quality systems on an internationally recognized level, a reference from which to judge future improvements, and a foundation for high quality production. On a more dynamic level, TQM creates an on-going process for improvements in quality, efficiency, and customer satisfaction. Comparing the two, the ISO 9000 standards stand as a static, narrowly focused approach to management. Nevertheless, when pursued as properly integrated first step, ISO 9000 is indispensable to the efficient implementation of total quality management.

### CHAPTER III

### DATA ANALYSIS AND INTERPRETATION

#### Mission and Objectives

This part is foundation work for the TQM programme. A Vision is the ultimate destination as perceived at a given moment in time. It is where the organization wants to be by a given time, e.g. No. 1 in the industry; the best in Hong Kong, Asia and/or the World. A Mission Statement declares the organization's means of achieving the Vision. The purpose of the Mission Statement is to communicate effectively with staff and the public about the objectives of the organization. The Goals are a list of what actions need to be taken to satisfy the Mission Statement. The Core Values are the things, the beliefs, the ideas, that clearly mean the most to everybody about the philosophy of an organization's corporate culture. The Vision, the Mission Statement, the Goals and the Core Values putting together defining the business direction and the objectives of an organization.



## Developing of Mission Statements

The progress on development of Mission Statements, which is the basic requisiteness for the implementation of TQM programme, within each member companies of X & Y Group is tabled as follows:

	Corporate Mission Statement	Divisional Mission Statement	Departmental Mission Statement	Sectional Mission Statement
XYET	Yes/No	Yes/No	No	No
XYJC	Yes	N/A	No	No
XYAC	Yes	N/A	No	No
XYEW	Yes	N/A	Yes	No
XYESC	Yes	Yes	Yes	No
TTI	Yes	N/A	Yes	No
XYTEC	Yes	Yes	Yes	No
XYFOR	Yes	Yes	Yes	No
XYCON	Yes	N/A	Yes	No

“N/A” indicates there is no such level in the company’s hierarchy. A “Yes/No” answer is given to XYET to indicate that although the corporate and divisional Mission Statements have been developed, they are still awaiting the final approval of the Managing Director, who is also the Chairman of the Group. Most respondents considered the development of Mission Statements down to sectional and/or unit level within a department is not necessary. Those companies lag behind in the development of Mission Statements mainly due to top management are not keen in pursuing of TQM. They consider TQM is something extra, not a need for doing business. Therefore, though the development of Mission Statements is fundamental to the pursuit of TQM, it could not be accomplished without the support and initiative of top management. This perception is particularly apparent for the senior management of XYET, XYJC and XYAC.

Core Values

List of core values as determined by the respondents are as follows:

Core values	XYET	XYJC	XYAC	XYEW	XYESC	TTI	XYTEC	XYFOR	XYCON
Customer satisfaction	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dealer relationship		✓							
Brand image and goodwill		✓							
Product knowledge		✓							
Employee satisfaction					✓	✓		✓	✓
Value added service					✓		✓		
Return on investment					✓				
Quality service						✓		✓	✓
Competitiveness				✓			✓		
Goal congruence							✓		
Creative and competitive			✓						
Employee dedication and loyalty	✓			✓				✓	
Continuous improvement	✓								
Open two-way communication	✓								
Trust and respect	✓							✓	
Survival				✓					

A “✓” indicates the respondent suggests this factor as a core value. “Customer satisfaction” which is the main theme underlying the TQM culture is suggested by all companies as a key core value. “Value added service” and “Quality service” are more or less having the same meaning. Staff morale and attitude related attributes including “Employee satisfaction”, “Trust and respect”, “Open two-way communication”, “Goal congruence” and “Employee dedication and loyalty” are also favourite factors quoted



as core values by respondents. Nevertheless, “Continuous improvement” which is the fundament to achieve customer satisfaction is mentioned as a core value by one company only.

Goal Setting and Benchmarking

Whether long-term and/or short-term goals are established to achieve stated objectives and visions of the companies and also has benchmarking, a key element of TQM, been used as a goal setting tool is summarised as follows:

	Long-term Goals	Short-term (yearly) Goals	Use of Benchmarking
XYET	No	No	No
XYJC	No	No	No
XYAC	No	Yes	No
XYEW	Yes	Yes	No
XYESC	No	Yes	No
TTI	Yes	Yes	No
XYTEC	Yes	Yes	No
XYFOR	Yes	Yes	No
XYCON	No	Yes	No

Vision and mission statements for XYET have still not been fully developed and published at all appropriate levels. Without these completed, neither long-term nor short-term goals developed because all major goals should be determined by what the Company’s/Divisions’/Departments’ missions are. Company Head of XYJC claims that they have developed goals but have not published to appropriate levels within the company. Other than XYET and XYJC, most companies have set goals, at least a yearly one for 1997. Benchmarking has generally not been implemented because in most cases the market research necessary to provide the data needed for benchmarking has not yet been done. Although X & Y Group has joined the Hong Kong



Benchmarking Clearinghouse Ltd. as a founding member, none of the respondents show keen interest in approaching it for expertise advice on benchmarking.

To sum up, XYFOR, XYESC, XYEW and XTEC are the furthest ahead while XYET and XYJC are considerably lag behind in the development of goals and mission statements that lay the foundations for the quest of TQM.

Customer Focus and Satisfaction

The measurement methodology and the latest data and trend on customer satisfaction are summarised as follows:

	Latest Percent of customer satisfaction	Trend over the last 3 years	Market research by own staff	Market research by consultant	Market research by customer focus group	Knowledge of competitors' customer satisfaction level
XYET	78.0%	↑	✓	✓	✓	Yes
XYJC	90.0%	↑	✓	×	×	D/K
XYAC	D/K	N/A	N/A	N/A	N/A	D/K
XYEW	95.2%	↑	✓	×	×	D/K
XYESC	73.4%	↑	✓	✓	✓	Yes
TTI	65.7%	D/K	✓	×	×	D/K
XYTEC	90.8%	↓	✓	✓	✓	Yes
XYFOR	97.0%	D/K	✓	×	×	D/K
XYCON	88.7%	D/K	✓	×	×	D/K

A “↑” indicates the trend of customer satisfaction is improving, while a “↓” indicates the trend is worsening. A “Don’t Know or D/K in short” answer indicates that the respondent either cannot provide the answer and/or does not have the information on hand. Only XYAC does not know the satisfaction level of its customers because it has not carried out any market research activities at all. A reason quoted by

the respondent is that more than 70% of the services of XYAC are rendered to other member companies of X & Y Group and hence customer satisfaction is not of prime interest to them. The same perception, however, does not apply to XYFOR who also performs the delivery and warehousing services for other member companies of the Group. XYFOR has carried out survey on various aspects of her services rendered to other sales member companies including XYET, XYJC, XYEW and XYTEC. Those respondents do not know the trend of the customer satisfaction level over the last three years because they have just conducted one or two times customer satisfaction surveys since implementation of TQM in 1994. Majority of the market research surveys are conducted by in-house staff. In fact, sales companies like XYET, XYTEC, XYJC and XYEW have their own marketing divisions that include market survey teams to conduct regular customer satisfaction surveys. However, it is only those respondents who have conducted customer satisfaction surveys by hiring external consultants and/or thorough customer focus groups formed from carefully selected participants could obtain reliable information on the customer satisfaction levels of leading competitors.

Market Share and Customer Attrition Rate

	Knowledge of market share	Trend of market share	Knowledge of customer attrition rate	Trend of customer attrition rate	Source of data
XYET	Yes	↑↓	Yes	↑↓	SRH Report
XYJC	Yes	↑↓	Yes	↑↓	SRH Report
XYAC	D/K	D/K	D/K	D/K	N/A
XYEW	Yes	↑↓	D/K	D/K	SRH Report
XYESC	Yes (96.9%)	↑	Yes	↑	Market Survey
TTI	D/K	D/K	D/K	D/K	N/A
XYTEC	Yes	↑↓	Yes	↑↓	SRH Report
XYFOR	N/A	N/A	N/A	N/A	N/A
XYCON	D/K	D/K	D/K	D/K	N/A



A “Yes” answer indicates that the respondent knows its own market shares but due to variety of products marketed, no explicit percentage of each product would be stated. XYESC is the appointed sole repair and maintenance centre for *N & P* and its sister brands products and therefore a high percentage of market share is no surprising. A “↑↓” answer denotes that the trend is either improving or worsening depending on the specific product type that is referred to. A “Don’t Know or D/K in short” answer indicates the respondent has not carried out any activity to measure and ascertain its own market shares and/or customer attrition rate. This section is “N/A- not applicable” for XYFOR because it is responsible solely for the delivery and warehousing functions of the sales member companies of X & Y Group and hence with no other customers to serve and rivals to compete. Most respondents rely on the annual “Electrical Appliances Survey 1996” conducted by Survey Research Ltd., or the SRH report in its short form, as an important source to ascertain their own market positioning relative to those of other competitors.

### Customer Satisfaction Drivers

Customer satisfaction drivers refer to those attributes or characteristics of products or services and the reinforcement of which would increase the likelihood or acceptance of the customers to use the services or buy the product. In this section, respondents were asked to give their ideas on what aspects of their services and/or products that would be most appealing to induce customer satisfactions. Though many of the answers given are pertinent to the nature of different businesses, some of them do reflect common viewpoints among respondents. The following table summarises the customer satisfaction factors quoted by the respondents during the interviews.



Customer satisfaction drivers	XYET	XYJC	XYAC	XYEW	XYESC	TTI	XYTEC	XYFOR	XYCON
Friendly working attitude							✓		* ✓
On-time services						✓			* ✓
Competitive and reasonable charge									✓
Professional advice to customer									✓
Quality sales services	* ✓	* ✓		* ✓		✓	* ✓		
Tracking & attending customer complaint						✓			
Quality of services rendered					* ✓				
Efficiency of services rendered					* ✓				
Accuracy of invoices					* ✓				
Reasonable ordering cycle time					* ✓				
Efficient delivery services		* ✓		* ✓			* ✓	* ✓	
After sales and/or maintenance services and care		* ✓		* ✓		✓	* ✓		
Advertising and promotion activities							* ✓		
Politeness of delivery staff								* ✓	
Appearance of delivery staff								* ✓	
Good product handling skill upon delivery								* ✓	
Flexible delivery schedules							* ✓		
Product quality and goodwill/image		* ✓		* ✓			* ✓		
Attractive product outlook	* ✓								
Efficient and accurate order-taking services	* ✓								
Sufficient sales back-up services	* ✓								
Sufficient publicity back-up	* ✓								
Good value for money	* ✓								

A “✓” indicates that the respondent mentions this factor as one of the customer satisfaction drivers whereas a “\*✓” denotes that this driver has been validated by formal customer research. Since XYAC has not performed any formal customer research activities since implementing TQM, no idea to this area could be provided by them. Some satisfaction drivers such as “Politeness of delivery staff”, “Appearance of delivery staff” and “Good product handling skill upon delivery” are unique to XYFOR being the sole agent responsible for the delivery and warehousing function of the Group. Some of the satisfaction drivers are also interrelated such as “Sufficient back-up services” quoted by XYET which is in fact the same as “After sales and/or maintenance services and care” and “Efficient delivery services” mentioned by other respondents. There are also similar perceptions amongst sales companies of X & Y Group on those factors including product quality, sales back-up services, advertising and promotional support activities which are all regarded by them as important drivers to customer satisfaction.

### Customer Dissatisfaction Drivers

Customer dissatisfaction drivers refer to those attributes or characteristics of product or services and the abatement of which would increase the likelihood or acceptance of the customers to use the services or buy the product. Above all, the most important thing of knowing the customer satisfaction and dissatisfaction factors is to help the company to plan its marketing strategies for increase and/or quest of customer satisfactions. Greater details on this issue will be discussed and addressed in the following sections. The perceptions on customer dissatisfaction factors as proposed by member companies of X & Y Group are summarised as follows:



Customer dissatisfaction drivers	XYET	XYJC	XYAC	XYEW	XYESC	TTI	XYTEC	XYFOR	XYCON
Pricing competition and positioning	* ✓					✓			✓
Quality of service rendered						✓			✓
Creativity of services rendered						✓			
Variety of products sold and/or services rendered						✓			
Product quality	* ✓	* ✓			* ✓				
Warranty plan							* ✓		
Availability of Hot Line services							* ✓		
Return/exchange of sub-standard goods							* ✓		
Inflexible delivery time								✓	
Delivery on schedule								✓	
Product obsolescence (for some products)	* ✓	✓							
Advertising & promotional activities		✓		* ✓					
Long delivery lead time				* ✓					
Low delivery efficiency/flexibility	* ✓								
Limited product range (for some products)	* ✓								
Expensive chargeable rates					* ✓				

A “✓” indicates that the respondent suggests this factor as one of the customer dissatisfaction drivers whereas a “\*✓” denotes that this driver has been validated by formal customer research. Since XYAC has not performed any formal customer research activities since implementing TQM in 1994, no idea to this area could be provided by them. Unlike the answers obtained for customer satisfaction drivers, responses to customer dissatisfaction drivers vary and tend to be unique to the business



nature of the respondents. For example, TTI is an advertising agent and therefore proposes “Creativity of services rendered” and “Variety of products/services rendered” as the two main customer dissatisfaction drivers. The same observation also applies to XYFOR, the delivery and warehousing agent, suggesting “Inflexible delivery time” and “Delivery on schedule” as the customer dissatisfaction drivers. On the other hand, some of the customer dissatisfaction factors including “Quality of service rendered”, “Product quality” and “Advertising & promotional activities” could either be satisfaction or dissatisfaction drivers depending on how the products sold and/or services rendered by the respondents accomplish with respect to each of them to meet the perception and expectation of the customers.

Development of Action Plans to Promote Customer Satisfaction Drivers  
and Minimising Customer Dissatisfaction Drivers

	Action plans to promote customer satisfaction drivers	Action plans to minimise customer dissatisfaction drivers
XYET	Yes	Yes
XYJC	No	No
XYAC	No	No
XYEW	Yes	Yes
XYESC	Yes	Yes
TTI	No	No
XYTEC	Yes	Yes
XYFOR	Yes	Yes
XYCON	Yes	Yes

Since XYAC has not performed any formal customer research activities, a “No” answer is expected from them. Besides, XYJC and TTI also have no specific plans developed to increase customer satisfaction levels. Other respondents have either developed comprehensive action plans or at least implemented some sort of activities and/or measures, to promote customer satisfaction drivers and/or minimise dissatisfaction factors as elaborated in the following sections.

Development of Service Pledges

	Issue/Preparation of service pledges
XYET	No
XYJC	No
XYAC	No
XYEW	Yes
XYESC	Yes
TTI	No
XYTEC	Yes
XYFOR	Yes
XYCON	No

Service pledges are the formal commitments to customers in the form of performance guarantees. Among all the nine member companies of X & Y Group, XYESC advances well ahead of others in this area. The service pledges of XYESC was formally issued and released to the public in early 1995 and the second revision is underway and will be released soon. For both XYEW and XYTEC, the service or performance pledges are pending the final review and approval by top management and will hopefully be released/issued by the end of 1997. As for XYFOR, formal written commitments to service standards including “Normal delivery orders to be completed within 72 hours” and “Urgent delivery orders to be completed within 24 hours” have been agreed with sales member companies including XYET, XYJC, XYTEC and XYEW as the main criteria for assessing the performance of XYFOR in its capacity as delivery servicing sub-contractor under the requirements of ISO 9000 accreditation. For those companies that have not yet prepared any service pledges, no explicit indications of the time schedules for their development are given. Nevertheless, except for XYJC, they all agree that issue of service pledges to the customers is necessary under the TQM programme as an effective means to strive for continuous customer satisfaction and quality improvement in the long run.



Measuring the Views on Quality of Service of Internal Customers

	XYET	XYJC	XYAC	XYEW	XYESC	TTI	XYTEC	XYFOR	XYCON
Have formal steps being taken to measure views on quality service of internal customers?	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes
If “Yes”, what are the methodologies used?									
Weekly operations meeting								✓	
Department/section team meeting								✓	
Meet-the-staff session					✓			✓	
Establishment of departmental service standards				✓			✓	✓	✓
Staff opinion survey					✓		✓	✓	
Staff suggestion scheme	✓				✓		✓	✓	
Monthly department head meeting	✓								
Staff focus group	✓				✓		✓		
Use of internal audit check/measurement				✓					✓
Use of job evaluation form	✓								
Incorporation of quality service standard in staff performance goal setting					✓				

The definition of customers, under the TQM culture, should include both the internal customers and external customers. Therefore, meeting the satisfaction of internal customers is equally important as to meeting the satisfaction of external customers. XYJC, XYAC and TTI gave a “No” answer to this area indicating that they do not have any formal steps in place to measure views of internal customers on the quality of service provided by other departments. Some of the answers such as “Weekly operations meeting”; “Department/section team meeting”; “Meet-the-staff session” and



“Monthly department head meeting” mentioned by respondents could not, strictly speaking, be regarded as specific tools for measuring the views on quality service of internal customers within the same organization. “Staff opinion survey”; “Staff suggestion scheme” and “Staff focus group” would be more appropriate for gathering information on general aspects of operational efficiency rather than focusing on collecting views on inter-departmental performance. “Use of job evaluation form” mentioned by XYET is adopted only by the Marketing Communication Division to evaluate the feedback on surveys and other promotional activities assigned by sales divisions and does not apply to other departments across the company. “Incorporation of quality service standard in staff performance goal setting” is a new idea introduced by XYESC in 1997 for the staff appraisal system and its effectiveness is subject to further evaluation. Nevertheless, all respondents agree that the most efficient and effective means of measuring the views of internal customers on the quality of service provided by other departments within the same organization is to establish internal service pledges or departmental service standards together with the setting up of appropriate internal audit check/measurement monitoring devices. Based on these criteria, XYEW and XYCON progress the best in measuring the views on quality of service of internal customers among all the nine member companies within the Group.

### Operational Performance and Process Improvement

The essence of TQM is to strive for total customer satisfaction and continuous improvement. Firms engaged in TQM require the commitment of all employees to the continuous improvement of all work processes, with the goal of satisfying both internal and external customers. Customer focus is the key to meet customer satisfaction. Understanding the expectations and needs of customers become prerequisite to develop effective business strategy

to achieve total customer satisfaction. Customer feedback and opinions are critical to assess the quality of services provided to them. Therefore, establishing effective and efficient channels to interact directly with customers are important to ensure first hand information on customers’ opinions on service and/or product quality could be obtained and analysed for prompt appropriate actions.

Actions Taken to Increase Direct Interaction With Customers

In this section, respondents are asked to give an account of the actions taken to increase direct interaction with customers. The feedback is summarised as follows:

	XYET	XYJC	XYAC	XYEW	XYESC	TTI	XYTEC	XYFOR	XYCON
Have formal steps being taken to increase direct interaction with customers?	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
If “Yes”, what are the methodologies used?									
Personal visits to key customers	✓	✓		✓			✓		✓
Dealer/Product seminars	✓	✓					✓		
Job performance feedback evaluation					✓				
Customer opinion survey	✓	✓		✓			✓	✓	✓
Road shows/Sales counters at department stores	✓						✓		
Participation in Trade fair/exhibition	✓						✓		
Showroom activities	✓	✓		✓			✓		
Hot Line services	✓	✓			✓		✓		
Group dealer tour	✓	✓					✓		
Dealer visit to supplier factory	✓	✓		✓			✓		



Moreover, the “Means of Developing Relationship and Improving Two-Way Communication with Customers” adopted by respondents were also examined and the result is summarised as on below:

	XYET	XYJC	XYEW	XYESC	XYTEC	XYFOR	XYCON
Courtesy calls	✓	✓	✓	✓	✓	✓	✓
Entertaining customer's complaints with due care and regard	✓	✓	✓	✓	✓	✓	✓
Acclamations from customers are recognized and praised				✓			
Periodic meeting with customers	✓	✓	✓		✓		✓
Customer focus group	✓			✓	✓		
Customer feedback log				✓			
Collection of customer's views at counters of service counters				✓			
User training class	✓				✓		
Complaint tracking and handling system	✓	✓	✓	✓	✓	✓	✓

XYAC and TTI do not have any formal steps in place to increase direct interaction with customers. Since XYAC provides advertising services mainly to other member companies of the Group, regular meetings with them are considered sufficient to exchange ideas and collection of feedback in the opinion of top management of the former. Of the answers provided by other respondents, many of them are in fact normal daily routines and activities of the marketing and sales functions. These include “Personal visits to key customers”; “Dealer/Product seminars arranged upon launch of new products”; “Road shows and/or setting up sales counters at department stores”; “Showroom activities”; “Hot line services” and “Collection of customers’ views at counters of service centres”. Other activities such as “Group tour with dealers” and “Dealer visits to supplier’s factory in Japan” are in fact incentives under sales campaigns designed to

stimulate sales. "Complaint tracking and handling system" and "Entertaining customer's complaints with due care and regard" are prerequisites for an effective customer handling process which must be established by all ISO 9000 accredited organizations.

### Process Improvement

The part on Process Improvement of the self-assessment exercise is probably the most critical one because it is the area which, if properly and fully followed, will lead directly to the improvement of the company's business level. A case study on Robinson & Wetmore Inc., US by Smith & Siber (1994) highlighted that the process improvement is the backbone of a successful TQM programme and must be clearly understood by all those involved. The critical steps of a typical process improvement include:

- (i) List all the company's processes
- (ii) Grade them according to size and importance
- (iii) Appoint Process Owners (the more important the Process the higher the grade of the Owner)
- (iv) Set up and train the Process Improvement Teams
- (v) Benchmark to be No. 1
- (vi) Implement Process Improvement
- (vii) Measure the results
- (viii) Review and
- (ix) Re-Benchmark



However, according to the result of the interviews, only a few companies have started Process Improvement activities as shown below. Undoubtedly, there is still a lot to be done by all of the respondents on this important area if TQM is to be fruitful.

	Establishment of Process Improvement Teams
XYET	No
XYJC	No
XYAC	No
XYEW	Yes
XYESC	Yes
TTI	No
XYTEC	Yes
XYFOR	Yes
XYCON	No

Formal benchmarking exercises are not used in setting the best destiny for Process Improvement. Of those respondents that have started Process Improvement activities, the progress is summarised as follows:

	No. of Process Improvement Teams formed	No. of Processes Identified	No. of Action Plans Approved	No. of Action Plans Implemented or Completed	Use of Benchmarking
XYEW	4	20	9	3	No
XYESC	3	16	6	2	No
XYTEC	5	18	8	4	No
XYFOR	10	17	10	4	No

Human Resources

Staff Opinion Survey

Of equal importance to customer satisfaction is employee satisfaction. Employees are the most important resource of the company. Effective processes are

needed to be implemented to improve their skills to increase customer satisfaction, and to make them as efficient as they can be. But beforehand, the company need to know how the employees feel about a variety of critical issues. The critical issues include:

- assess employees morale
- determine how well they understand company strategy
- determine the extent to which they accept and understand the philosophy of TQM
- learn what they think of their managers and of management in general
- assess how customer-oriented they think the company is
- determine to what extent they feel that products and services meet customer desires
- understand what they are being treated and rewarded
- determine the extent of their capabilities to serve customers

Staff Opinion Survey is often used to ascertain the perceptions of the employees on the aforesaid critical issues. Staff Opinion Survey is also an important element of TQM. The purpose of Staff Opinion Survey is to collect ideas and viewpoints of employees on the Human Resources related functions and companywide policies in order to help the employer to design its management strategies for the betterment and development of the employees. Therefore, as part of the TQM programme, an annual Staff Opinion Survey has been introduced by X & Y Group starting from the inception of implementing TQM in 1994. The annual Staff Opinion Survey is conducted in every June in all nine member companies. The results indicate the favourable feedback (the percentage of agreement) of the employees on the thirteen evaluation criteria of the Staff Opinion Surveys over the last three years from 1994 to 1996 across the Group as a whole are summarised as follows:



Survey areas	94 (%)	95(%)	96(%)	96 Vs. 95(%)
Training	51.2	63.3	68.1	+4.8
Teamwork & staff relationship	82.1	83.1	85.8	+2.7
Communications	71.0	76.2	75.3	-0.9
Performance appraisal	49.2	62.3	67.2	+4.9
Promotion prospect	64.3	71.1	72.4	+1.3
Fringe benefits	65.7	68.0	71.9	+3.9
Recreational activities	49.2	62.2	60.1	-2.1
Job security	58.1	67.3	70.2	+2.9
Motivation	60.2	68.4	72.7	+4.3
Company image and quality policies	69.4	78.5	82.0	+3.5
Job duties	70.1	78.0	80.7	+2.7
Working environment	58.2	65.2	67.9	+2.7
Job satisfaction	66.0	72.3	77.0	+4.7

Comparing the survey results between 1995 and 1996, out of the 13 survey items, 11 items show a positive trend. The remaining two items that show a negative trend are “Communications” and “Recreational activities”. Of utmost importance is the need for effective communications to be established throughout the organization which is always considered a must for the successful implementation of TQM. Though difficult to correlate exactly one attributable to the other, the satisfaction levels of employees on all the 13 Staff Opinion Survey criteria do show an improving trend over the last three years after the implementation of TQM programme in 1994.

As for individual companies, the percentage of staff satisfied with the company as an employer as revealed by 1996 annual Staff Opinion Survey and the trend over the three years from 1994 to 1996 is shown as follows:

	% of satisfaction as an employer (1996 Survey)	Trend over the last 3 years from 1994 to 1996
XYET	96.0	↑
XYJC	56.2	↓
XYAC	73.7	↑
XYEW	86.0	↑
XYESC	81.0	↑
TTI	95.0	↑
XYTEC	82.3	↑
XYFOR	87.0	↑
XYCON	90.0	↑

The two companies with the lowest employee satisfaction levels are XYJC and XYAC. The situation is particularly acute for XYJC who is only able to secure an employee satisfaction level of 56.2% and is worsening over the last three years. The rest of the respondents are able to secure an employee satisfaction level of more than 80%. Coincidentally, XYJC and XYAC are the two companies that show little enthusiasm in pursuing of TQM as compared to other member colleagues. Though there are a lot of drivers contribute for improving employee satisfaction level, yet the pursuit of TQM would surely play an important part. Quest for quality improvement requires the contribution and dedication from everyone involved. It is a win-win payoff because the success of TQM will increase sales and profit which in turn will lead to better rewarding, job satisfaction and recognition for employees.

### Performance Management System

Many quality experts, for example Dr. Deming, believe that workers normally want to do well. When they do not, it is usually management's fault because it either created an environment that failed to bring out the best in people or it measured them incorrectly. Managers should focus on eliminating obstacles to good work, instead of just watching employees to make sure they perform. The old-style, autocratic and secretive method of appraising staff led to relationships with little or no trust, an environment in which they are controlled rather than given direction. Effective appraisal must:

- be based on actual performance against agreed, quantified, goals and standards
- incorporate the sandwich technique of praise, counsel, praise
- accept that employees do work within groups or teams



- accept the reality that employees work within systems or processes, not as individuals acting as master of their own destiny
- be seen to be by the employee as a critical part of the career development process
- must be designed and implemented so that they can be unbiased and consistent

Bearing the aforesaid guidelines, appraisals, as part of the Performance Management System, was developed and implemented for all member companies of X & Y Group following the inception of implementing TQM in 1994 to direct/guide employees, to provide useful feedback, determine training needs and career development possibilities, cement staff/manager relationships, increase motivation and commitment, improve communication, and show the staff the extent to which management cares about and supports them in achieving their objectives. The top management believes that using the Performance Management System and measuring performance against agreed quality goals and standards, and linking this through appraisal ratings to annual bonus and salary increment is a very strong tool in achieving total quality. Although the Performance Management System has been adopted mandatory by all member companies of X & Y Group as part of the TQM programme, in the opinions of most interviewees, it still has the following areas to be improved:

- personal bias is inevitable in setting the goals and conducting the appraisals
- some of the goals and performance standards are set according to individual capabilities of employees rather than the requirements expected from the job holders
- except for XYESC, who will introduce the incorporation of quality service standard in staff performance goal setting in 1997, quality related issues are not a mandate for goal and standard setting in most companies

- annual bonus and rewards are not seen to be linked entirely to result of performance appraisal and thus reduces the credibility of the Performance Management System

Staff Suggestion Scheme

Most typical company suggestion schemes do not work well. Very few staff make a contribution. However, an effective suggestion scheme is a must for quality-oriented organization. It is a vital process as a vehicle for continuous improvement. Efficient suggestion processes are simple, measurable, feedback-driven. They encourage ideas on any subject from any employee, secure the involvement of his or her immediate manager, offer quick feedback and adoption. Encouragement and recognition are given only to ideas that improve things. The progress on establishment of formal Staff Suggestion Scheme in member companies of X & Y Group is summarised as follows:

	Establishment of Staff Suggestion Scheme
XYET	Yes
XYJC	No
XYAC	No
XYEW	Yes
XYESC	Yes
TTI	No
XYTEC	Yes
XYFOR	Yes
XYCON	Yes

XYTEC is the first one to implement Staff Suggestion Scheme, follows by XYESC; XYET; XYEW and so on. The mechanism of operating the Staff Suggestion Scheme is basically the same for all Group member companies whereby a committee is formed to assess the usefulness and applicability of each incoming suggestion. A



rewarding system is adopted to recognize suggestions in scale of values as determined by the committee. All suggestions, whether accepted or not, will be addressed individually by the committee and posted in the notice board for information of all employees. However, sensitive issues such as office disciplines and staff promotion and rewarding systems are those areas being deliberately excluded by top management from the Staff Suggestion Scheme.

### Information and Analysis

The management information systems (MIS) function is critical for many business processes. As companies have improved the way they do business, they increasingly have new uses for computers while reworking old applications. Some benefits of using computers to improve quality of performance are:

- they shorten lines of communications
- computer-based applications can be designed to make sure the right information is in the right place at the right time
- computers can gather data on transactions and also on how processes are doing (simulation), then do basic statistical analysis for you
- they make it possible to provide new or additional services
- building data base into a computer system whereby customer-contact personnel can quickly access answers to the most frequent asked questions helps provide a quality service to customers

X & Y Group is actively looking for additional ways to use Information Technology (IT) to help meet current and future business goals and keep pace with rapidly changing customer requirements and competitive challenges. X & Y Group

wants to be able to use IT to increase sales, reduce costs, and enhance customer satisfaction. The existing Wang VS 7110 mini computer system used by member companies of X & Y Group had been bought in 1981. Two years ago in early 1995, seeing that the Wang computer system is inadequate to handle and meet the daily needs of the functional units and the growing importance of data exchange and information sharing among member companies of X & Y Group for the strategic purposes of exercising controls by top management, the Group has decided to centralize its IT functions by carrying out a massive IT implementation program under the project name of "Marketing Machine". The total investment of the IT development program is about HK\$40.0 million and will take about 24 months to complete. However, as of today, the progress of the IT development program has encountered serious delay due to some critical technical problems. The unforeseen delay in the development of the new computer platform not only affects the efficiency and effectiveness of the daily IT routines but also hinder the progress of most process improvement activities that rely primarily on the IT logic as the infrastructure for their development.

### Executive Leadership

Quality begins with leaders. TQM is a mindset that starts at the top, and, for organizations implementing TQM, their leaders must be role models. The burden of effective implementation of TQM falls on top management. Successful TQM is a question of leadership. If top managers want to achieve TQM, they must put it at the top of their agendas. Leadership style is important in the quest for total quality management. Most important, leaders must make the necessary and visible adjustments



to their own behaviours, expectations, and values in line with the TQM values. Commitment is the foundation of an effective TQM initiative. Leadership is the key issue in promoting commitment. An active commitment from top management is essential to TQM but old management practices do not change easily. Leaders must be able to inspire others to create and manage change, to take responsibility, and, above all, to take risks. The senior managers must establish a vision of what quality is in that organization by explaining that it is a company-wide initiative, that it is supported by the top man, and that it will implement well-known business practices. The vision should be tied to corporate values that cherish customer service, employee involvement, and dignity in a world of continuous improvement.

Leaders must create an environment which allows and encourages improvements. The four critical elements of this are quality action plans, progress review of these plans, recognition for achievement of quality improvements, and then appropriate rewards. Leaders must lead by example. In addition to making presentations, they must go to classes on quality, insist on quality reviews at staff meetings, be team leaders on important processes, and approach problems as opportunities to learn and improve. This means leaders must organize their time to be able to meet these requirements. Leadership based on a true understanding of how quality will influence the success of the organization is prerequisite for the success of TQM efforts.

In this section, demonstrations of leadership from top management on TQM programme were examined in four aspects including personal participation in reinforcement of quality values, regular review on quality performance, meeting of team members and employees to discuss quality performance and the encouragement

of team members to participate external quality functions and activities to gain and enhance experience and knowledge on TQM as part of the quality training program.

The results are summarised as follows:

Demonstrating of leadership on quality issues	XYET	XYJC	XYAC	XYEW	XYESC	TTI	XYTEC	XYFOR	XYCON
Participation in reinforcement of quality values	✓	✓	✓	✓	✓	✓	✓	✓	✓
Regular review on quality performance	✓	✓	✓	✓	✓	✓	✓	✓	✓
Meeting with team members and employees on quality issues	✓	✓	✗	✓	✓	✓	✓	✓	✓
Encourage team members to participate in external quality activities	✓	✗	✓	✓	✓	✗	✓	✓	✗

All respondents gave positive responses to this section. Though top management of XYJC; XYAC and TTI claimed that they have performed their duties in leading their TQM programmes, no examples were given of how personal actions were taken to demonstrate, communicate, and reinforce the company’s quality values. In fact, nothing is being done here by top management of XYJC; XYAC and TTI that is relevant to the TQM programme. For other respondents, participation in in-house quality seminars, workshops and symposiums were quoted as examples to demonstrate the personal effort of top management in pursuit of TQM. Believing and seeing the advantages of TQM, Company Heads of XYTEC; XYESC; XYFOR and XYEW are more enthusiastic in playing their part as role models to lead the TQM programmes in their organizations.



### TQM-Critical Success Factors and Encountered Difficulties

Hereunder is the list of Critical Success Factors told by the respondents for TQM success:

1. Staff involvement/acceptance
2. Early success
3. Effective leadership
4. Quality attitudes of the staff
5. Understanding TQM principles
6. Staff commitment
7. Responsibility
8. Clear objectives from top-down
9. Quality training, including hands-on (e.g. Workflow)
10. Good people management
11. Total commitment of management
12. Team support
13. Total satisfaction of customers
14. Management Information System (M.I.S.) support
15. The Chairman's support

Also, the main difficulties that were experiencing in pursuit of TQM and as told by the respondents are:

1. Manpower shortage
2. Some senior staff not committed
3. Direction and priority not clearly indicated

4. Measuring performance needs a lot of resources and activity
5. Insufficient TQM training to all levels of employees
6. Takes time to understand
7. Change crash, some staff strongly resist it

Many of the above Critical Success Factors and inherent difficulties cited for quest of TQM are typical to the findings of most researches and empirical studies on TQM implementations. Their impact on affecting the overall progress of the TQM programme of the nine member companies of X & Y Group as revealed by the result of this study is discussed in more details in the conclusion section under chapter IV.



### CHAPTER IV

### CONCLUSION

#### An Overview on TQM Self-Assessment Study

Progress in the TQM programme varies widely from company to company within X & Y Group. Four companies including XYET; XYJC; XYAC and TTI admit that they are moving somewhat slowly. It is obvious that changing the old die-hard cultures cannot be done overnight. Two companies, XYJC and XYAC, in spite of all that has been written and said by the Group Quality Council, still seem to view TQM as "something extra to do" - as separated from "the business". Although the development of mission statements and goals are fundamentals to TQM, three companies including XYET; XYAC and XYJC are still unable to produce them after implementing the programme for almost three years. Of course, all nine companies believe that they are fully focused on their customers. However, some of them really need to work hard to put some substance into their belief. XYTEC; XYESC and XYFOR seem to be ahead of the others in customer focus and striving for customer satisfaction. XYAC and XYJC are lagging behind. It is generally felt in XYJC that possession of ISO 9000 accreditation is all that is needed to be able to claim the necessary degree of quality customer service.

XYEW; XYESC; XYFOR and XYTEC have all done good preparation work for the critical Process Improvement activity. The others need to catch up in 1997. XYJC seem to believe that ISO 9000 is all they need to be a Quality Managed Company. However, ISO is only a platform, a foundation for TQM not a substitute for TQM.

General satisfaction with the company as an employer increased in most member companies of X & Y Group in 1996 over 1995 as revealed by the result of the recent annual Staff Opinion Survey. Nevertheless, in XYJC, this satisfaction level has fallen each year and reached an all-time alarming low of 56.2% in 1996 survey. All companies except XYJC have put together and implemented, in some cases published to the staff, Action Plans to improve this key area.

All companies that are destined to benefit from the introduction of the new Information Technology (IT) system - the "Marketing Machine" appear to have been well prepared for it and have spelt out their requirements in the planning and development phase of this new IT information system. However, the undue and unforeseen delay in the successful implementation of the "Marketing Machine" will undoubtedly affect the progress of the workflow and Process Improvement activities that are all basing on the new IT system as the infrastructure for their development.

There are some shining examples of Executive Leadership inside X & Y Group. Company Heads of XYEW; XYTEC; XYESC and XYFOR all seem to be making a good job of leading their TQM programmes. However, this is not evident in XYJC and XYAC. As a whole, XYTEC; XYESC; XYFOR and XYEW progress fine in pursuing TQM whereas the others need more effort to catch up. However, for



XYJC, effort would be totally in vain if the need for TQM culture is not accepted and supported by top management.

### Success Factors for TQM

Total quality management (TQM) is different from other programs in that it involves all employees and constitutes a fundamental change in the way an organization is measured and managed. To be successful, a number of key factors are prerequisites for TQM implementation programme. These critical success factors are discussed and analysed in the following sections, with respect to the experience of X & Y Group obtained in this study,.

### Readiness of an Organization for TQM

The TQM literature suggests that success comes to organizations ready for a change in climate and culture. Perceptions of both management and employees are important to assess because these groups function if perceptions are real and compromise. Much of the literature supports the need for agreement and understanding between employees and managers for successful quality initiatives. Hart and Musfeldt (1992) in their study of quality agreed the first phase should be an organizational readiness prior to development and implementation. The organizational readiness process would inform the organization about the scope and the purpose of the quality initiative and help encourage support and participation. Atchison (1992) also contends organizations' need to determine, beforehand, if they are ready for TQM and the commitments the TQM process will require. Atchison's study found the better job an organization does in assessing its readiness to adopt TQM, the more successful

it will be in its efforts to move the TQM process forward. Weeks et al (1995) suggest that to judge an organization's readiness to implement a successful TQM programme, strength and weaknesses in seven critical organizational characteristics must be assessed and in addition, significant differences in perception of such between management and employees should be considered. These critical characteristics include: Influence, Responsibility/Autonomy, Innovativeness, Desire to Change, Satisfaction, Teamwork and Common Vision/Benchmarking. Assessment instrument can be developed to measure the perception of the management and employees regarding these critical organizational characteristics. The entire organization or just a pilot team of employees and managers can be selected for the assessment. Evaluation of an organization before a new change process is implemented is proactive and should result in improved morale.

None of the member companies of X & Y Group has yet carried out similar assessment exercise as aforesaid prior to making the decision to pursue TQM in 1994. Should this assessment exercise be done, differences in perceptions and readiness to accept change between the management and employees could be identified, tackled and resolved beforehand. It also facilitates and assures the smoothness and minimising the conflict that might be encountered in developing the TQM quality process.

### Resistance to Cultural Change

TQM is a culture and quest for TQM often results in a fundamental change in the organization's corporate culture. To become a quality-driven organization, the following culture changes are needed:



- from transactional to relationship marketing
- from thinking just product to thinking overall “service”
- centralised to decentralised management
- total focus on individual performance to thinking team performance
- from bureaucratic to entrepreneurial approach
- inward (upward) focused to outward (customer) focused
- slow to change to quick to change
- from measuring efficiency to measuring effectiveness

In business, coping with change is a highly specialised task. Not too many people like change very much. Change in itself represents a challenge to business, but change is a must for survival in this highly competitive era. The old-style corporate structures and hierarchies can easily create a lack of flexibility and versatility in doing business. Yet in many companies, management fights against change, feeling more comfortable with tradition and the old ways of doing things. They believe this is less risky to jeopardize their established advantages. This perception is particularly strong in long established family owned Chinese enterprises like X & Y Group. With more than 43 years' presence and success in the industry, top management is used and contended to the old and traditional way of management style. The management style practiced in X & Y Group is highly authoritative and centralised with sphere of command and control built around the Group Chairman and the Managing Directors of respective member companies. A number of key positions in the Group are also held by senior personnel who have served the company for more than 20 years. Such old school managers are also reluctant to changes for their own benefits and advantages. Change is sometimes viewed as plague that brings forth troubles and unhappiness.

In an eminent authoritative management culture, change must be initiated top-down and is a must for the success of TQM programme. This is no easy job for some member companies of X & Y Group dominated by senior management with deep-rooted belief in old highly centralised management style. Senior management of XYJC and XYAC are just typical examples of this autocratic management style and that seem to help to explain why the progress in pursuit of TQM of these two companies are far lagging behind as compared to other affiliates.

### Need for Effective Measurements

Experience shows that most people will not attempt high performance unless they are being measured. This is particularly true in a sales and marketing environment, whether you are handling products or service or both. In order to improve continually, processes also have to be measured statistically. With TQM in mind, the measurement system must support the vision, goals and objectives in terms that are quality-driven.

In the Performance Management System which is the performance appraisal system designed and introduced as part of the TQM programme by X & Y Group in 1994, widely-based goals and standards for each team and individual will be agreed, quantified and weighted. The system allows these areas of measurement to be reviewed whenever necessary and to reflect the current situation in the market place and in the company and the stage of development of the employee. The performance appraisal of the individuals can then be based on the measured achievements against each goal. Therefore, with quality-based goals and the current system of appraisal determining annual bonus payments, salary increments and, to some extent, promotions, employees are focused by the company to obtain high achievements in key quality areas.



The rationales of designing and using the Performance Management System as an measurement device is sound but not being put into effective practices by most companies. The setting of no or improper quality-based goals/standards, personal bias and preference, reward and promotion are not seen absolutely tied to the result of performance appraisal, altogether discredit the usefulness of the Performance Management System. Therefore, to most employees, Performance Management System is not regarded as an effective measurement that both helps them to develop their career path and leads them to contribute towards the striving for quality excellence of the company. Therefore, to make TQM a success, the proper functioning of the Performance Management System as an effective measurement device must be observed and respected by everyone within the organization, from top management to employees, according to the established rules.

### Need for Effective Communications

Varian (1991) said that good communication is vital to the success of the total quality process. Exterbille (1996) also emphasizes that communication is an essential element of a TQM approach. Without the right communications planning, in parallel with a TQM plan, the company's efforts will be condemned to die quickly. Communication with employees is a weak area in many companies and X & Y Group is no exception. Most managers claim that good communication is essential for transmitting vision and goals and for ensuring quality performance. Organizations dedicated to continuous improvement have found communication to be a critical success factor because it is a primary element involved in the delivery of quality to employees and customers. Good communication strategies recognise that sharing

information is part of the quality education process for employees. In a typical quality organization structure that has been made flatter (less layers of management) communication becomes one of the two to three most important functions that senior management must spend time on with its employees. Effective executives and managers must have a process to ensure adequate, timely and relevant communications with employees and customers.

In X & Y Group, the implementation of TQM culture is basically top-down with all decisions and authority vested with the Company Head and the Quality Board members. Therefore, effective communication channels are necessary to convey promptly and clearly the message on TQM issues as discussed and decided by top management to the other employees. It is not uncommon to find that “knowing nothing” and “it is the business of top management” are often being used by employees as excuses to discharge themselves from involving as a participant of the TQM programme. To ensure success of TQM, this misconception which is usually caused by ineffective communications between managers and employees must be avoided.

### Need for Effective Teaming

In the modern business world, businesses have become more interested in deploying people in teams and judging the work of groups rather than individuals. It becomes easier to improve process if a group works together, combining various components of a collection of activities to reach a result. Teams are more productive than individuals. Teams improve process faster; are more flexible in changing offerings and responding to customer needs; the members are more committed. The result is greater customer satisfaction because they respond faster with better quality. To



achieve total quality, teaming is a critical strategic must. It is a fundamental way of organizing work to focus on tasks.

The effective functioning of teams require a competent leader, clear goals, unified commitment and need support and recognition. Team leaders need very specific attributes and attitudes. In simple form, these are : 1. give consistent goals and message, 2. have a clear perspective on expectations, 3. supportive decision-making, 4. suppression of personal ego, and 5. creativity. In the environment of X & Y Group, the lack of competent team leaders and difficulty in development of unified commitment become most critical to the pursuit of TQM. The deployment of sufficient resources to train employees on these skills and concepts would be helpful and beneficial, both to the employees and to the company itself in the long run.

### Need for Senior Management Commitment and Effective Leadership

TQM programme involves everyone from senior management to employees within the organization. It is a team effort that requires the input, contribution and commitment from everybody in order to make it a success. In an organization like X & Y Group which is basically operated under almost absolute centralised control with power and authority vested solely with top management, commitment and effective leadership of senior management are of utmost importance to the successfulness of pursuing TQM. This argument is supported by the comment made by the Board of Examiners on the winning edge of Mandarin Oriental Hotel Group, the 1992 HKMA Quality Award winner, who acclaimed that "Senior management are enthusiastic and committed leaders of the Group's service and quality improvement strategy". Without

the total commitment and effective leadership of top management, effort in striving for TQM would be in vain.

The most important of management commitment is the involvement and dedication of the company head. The importance of senior management commitment and effective leadership in quest for TQM is evidenced by the findings of this study on the experience of X & Y group. Though there is a Group Quality Council established in X & Y Group to oversee the TQM implementation programme, its function is advisory and mainly reactive. The responsibility for designing, planning and executing the detail TQM implementation programme is vested with the Company Head and members of the Quality Board of respective member companies. The major factors that differentiating the progress of pursuing TQM amongst member companies of X & Y Group are the enthusiasm and involvement shown by the Company Heads in leading their TQM programmes. XYTEC; XYESC; XYFOR and XYEW are well ahead of the other colleagues in quest for quality improvement because their Managing Directors are enthusiastic in leading the TQM programmes. Whereas for XYJC and XYAC that are far lagging behind, the Company Heads believe TQM is just a notion rather than a need. Hence, they express little interest and/or hesitated to take initiative in its implementation. TQM is just a fad without the commitment and leadership of the senior management. These factors are particularly critical for the management style of X & Y Group that is basically autocratic and totally authoritative.

### Need for Expertise Advice and Guidance

Unlike ISO 9000 which has clearly written framework and standards for guidance, the concept and principles of TQM are mostly abstract and hence difficult to



understand. Presently, many Quality Managers of X & Y Group are lacking of proper training in quality principles. Moreover, they are usually working full time for other positions and taking up post of Quality Manger as sideline duties. Recalling four years ago when the Group proceeded the ISO 9000 certification programme, Hong Kong Productivity Council (HKPC) was hired to lead the process. The consultants from HKPC had done an excellent job and their contributions were very fruitful. The same experience can also be applied to the TQM programme. External TQM consultant might be hired on advisory role. Surely, the consultant could help a lot and would also train up the Quality Managers through skill transfer.

### Closing

Due to variations in culture, management belief, personnel and business nature, members of X & Y Group are experiencing different difficulties and attaining different stages of success in implementing TQM since early 1994. Most of the factors and observations that might have a bearing on the development of TQM programme as identified during this study from conducting the self-assessment interviews with member companies of X & Y Group could be explained and interpreted within the context of findings supported by many empirical studies and researches on quality.

A number of companies have proceeded well whereas the other few still need a major breakthrough and adjustment of personal perception if the effort on TQM could be fruitful. Nevertheless, the decision to pursue TQM is on the right track and will carry X & Group comfortably through into the twentieth-first century together with her customers as what has been stated in the Group's corporate mission statement.

## **TQM SELF-ASSESSMENT QUESTIONS FOR INTERVIEWS**

### ***Introduction***

*This TQM self-assessment questions is designed primarily to obtain information for the theme study of the final year project of the MBA programme offered by The Chinese University of Hong Kong . The data obtained from this questionnaire are solely for research purpose and nether the details of the company nor the respondent will be identified and/or disclosed in the report of this study. All information and data collected will be treated strictly confidential.*

### **1. MISSION AND OBJECTIVES**

- 1.1 Has the organization developed, written and published its Visions, and mission statements at company, division, department and unit/section levels?
- 1.2 Has the organization established short, medium and long term (3- to 5-year) goals or objectives for achieving its visions and missions?
- 1.3 Were “best-in-class” benchmarks used to establish a majority of these goals or objectives?
- 1.4 Has the organization developed and implemented specific strategies and marketing plans to achieve a majority of these goals or objectives?
- 1.5 What have been determined are the core values of the company?

### **2. CUSTOMER FOCUS AND SATISFACTION**

- 2.1 During the past 12 months, has the organization quantitatively assessed the satisfaction of its external customers? What percentage of the organization’s customers are satisfied?
- 2.2 What methods are being used for measuring customer satisfaction?
- 2.3 Has the organization developed plans and strategies for meeting customer requirements and integrating these into overall business planning?
- 2.4 How has the total percentage of the organization’s customers who are satisfied trended over the past 2 to 3 years?
- 2.5 What percentage of the organization’s leading competitors’s customers are satisfied with the competitors’ performance?
- 2.6 Is a process now in place to regularly monitor the organization’s customer satisfaction performance over time?
- 2.7 Is there a process to translate customer requirements into product and service design specifications?



- 2.8 Are trends and current levels data available for all key measurements of product and service quality? (i.e. measurements of accuracy, reliability, timeliness, performance, etc.) Is data available to compare current quality levels with industry averages and competitors/benchmarks?
- 2.9 During the past 12 months, has the organization quantitatively assessed its market share or customer attrition rate?
- 2.10 If the answer to 2.9 is "Yes", then : What is the organization's current market share? How has the organization's market share trended over the past 2 to 3 years? What is the organization's current annual customer attrition rate? How has the organization's customer attrition rate trended over the past 2 to 3 years?
- 2.11 During the past 12 months, has the organization identified the drivers of customer satisfaction and dissatisfaction (i.e. what's important to customers) for its products and services?
- 2.12 If the answer to 2.13 is "Yes", then : What are the most important drivers of customer satisfaction and the most important drivers of customer dissatisfaction?
- 2.13 Have the organization established Action Plans to remove or minimize the dissatisfaction drivers?
- 2.14 Have you organized staff focus groups in order to learn what ideas they have to improve the service to your customers?
- 2.15 Are commitments to customers explicitly stated by the organization to promote customer trust and confidence?
- 2.16 Does the organization have product and/or service performance guarantees? (i.e. formal commitments to customers in the form of pledges) Does the organization follow-up with customers to help build relationships and seek feedback for improvement?
- 2.17 Has the company, during the past 12 months, taken formal steps to learn the views of internal customers on the quality of service provided by other departments? Please detail the methodology and the general result.

### **3. OPERATIONAL PERFORMANCE AND PROCESS IMPROVEMENT**

- 3.1 Does the organization set goals that contribute to evaluate its effectiveness?
- 3.2 Does the organization commit resources to meet all quality requirements? Does the organization have indicators and mechanisms to monitor them?
- 3.3 Does the organization have a communication strategy to cascade the requirements to staff, suppliers, agents, distributors, etc.?



- 3.4 Does the organization have a customer relationship management strategy? Does the organization provide information and easy access to help customers who seek assistance, raise complaints, give suggestions, etc.?
- 3.5 Does the organization have a structured approach to ensure that complaints and problems are resolved promptly and effectively? Does the organization analyze complaints to determine the root cause, and are they translated into quality improvement?
- 3.6 Does your company have a structured methodology for Process Improvement? What percentage of your employees have been trained in this?
- 3.7 Have your organization in the past 12 months reviewed existing operational processes and their effectiveness? Have your organization identified process improvement opportunities? Have your organization prioritized critical processes for improvement in order of importance and resources requirements?
- 3.8 How many Process Improvement Teams (P.I.T's) Have been established, trained and set to work? How many Process Improvement Action Plans have been approved as a result? In how many cases has measured quality improvement of these Processes been realized?
- 3.9 Is there a process to translate customer requirements into product and service design specifications? Does the organization communicate quality requirements to its suppliers?
- 3.10 Does the organization measure suppliers to ensure quality requirements are being met? Does the organization have strategies to improve the responsiveness of suppliers?

#### **4. HUMAN RESOURCES**

- 4.1 In the recent 1996 Annual Staff Opinion Survey what percentage of your employees were generally satisfied with the company as an employer? How has this satisfaction level trended over the last 3 years ?
- 4.2 In cases where less than 70% of the staff agreed with a Survey statement, have you established and implemented Action Plans to improve the situation?
- 4.3 Will the organization's customer focus and quality values be translated into performance requirements for all levels of management and all employees and included in their Performance Management System (PMS, a staff performance appraisal system)? Will action be taken to assist those functions or individuals not performing according to quality plans or goals?
- 4.4 Are there regularly scheduled quality management reviews to examine quality performance as well as effectiveness and efficiency?
- 4.5 Have you analyzed the organization structure in order to devise and implement a plan to convert the old-style vertical box structure to a horizontal system that ensures



efficient and effective reporting and communication and accomplishment of customer, quality, innovation and cycle time objectives?

- 4.6 Does management practices promote and establish channels for employee contributions to quality objectives both individually and in groups?
- 4.7 Have you in-house quality training programmes for employees? Have methods been developed to evaluate and improve the effectiveness of quality related education within the organization?
- 4.8 Is there a trend information available for recognition of individuals and groups contributing to quality and performance objectives?
- 4.9 Have you organized competitions for recognition of the achievement of your Process Improvement Teams?

## **5. INFORMATION AND ANALYSIS**

- 5.1 With the coming of the Marketing Machine (the new IT computer platform), have your organization used specific criteria to select types of data and information to be included in the quality-related data and information base? Do these criteria include: cycle time, defects, customer relations, internal operations and processes, employee relations, quality performance, and supplier quality?
- 5.2 Are there procedures coming into place to ensure reliability, standardization, consistency, timeliness and rapid access of data? Are there procedures coming into place to evaluate and improve the scope and quality of data/information?
- 5.3 Will customer-related and operational data be aggregated, analyzed and translated into actionable information to support the organization's operational and planning objectives, and assist data users?
- 5.4 Will trends and current levels data be available for key measurements of operational performance (those that address productivity, efficiency and effectiveness)?

## **6. EXECUTIVE LEADERSHIP**

- 6.1 Does the Senior Management take personal action to demonstrate, communicate, and reinforce the organization's quality values? What are these actions?
- 6.2 Does Senior Management review the quality performance of the organization on a scheduled basis? What are the review procedures?
- 6.3 Does the Senior Management met with employees and suppliers on a scheduled basis to discuss quality goals/performance?
- 6.4 Does the Senior Management encourage team members to participate and support in external organizations' quality groups?

## **7. Progress Review and Critical Success Factors for TQM**

- 7.1 In general terms, how is the Group's TQM programme progressing in your Company?
- 7.2 What are your 1996 TQM goals and to what extent are you achieving them?
- 7.3 How have you introduced TQM to your subordinates in terms of potential benefits to the company e.g. Teamwork/Togetherness, Professionalism/Timeliness, Completeness, Target Achievement, Measurement?
- 7.4 How aware of the need for this in an increasing competitive market do you think your staff are?
- 7.5 In addition to the Group TQM Awareness Programme, what other measures have been or will be taken by you to induce and increase staff initiative and enthusiasm for TQM?
- 7.6 To what extent do your staff realize how much they will be involved in TQM and to what extent?
- 7.7 How much knowledge does your staff have of TQM principles?
- 7.8 To what extent do your staff feel that TQM will help improve the Company's performance?
- 7.9 How committed do you feel your immediate reports are to the programme?
- 7.10 What are the most important critical success factors that you consider for the effective application of TQM?
- 7.11 How can they be accomplished with the existing resources?
- 7.12 What do you see as the practical problems or difficulties, if any? (Please give a brief account for each suggested factor.)
- 7.13 How frequently does your Quality Board meet?
- 7.14 What is your current situation in terms of identifying and prioritising core processes; setting up and empowering Process Improvement Teams; establishing benchmarks and measurements?
- 7.15 In what aspects do the functions of the Group Quality Council help you with your TQM programme?

————— *End of Questions set For Self-Assessment Interviews* —————



## **TQM Gurus - Dr. Deming's Contributions**

### **The Deming Cycle**

The Deming Cycle was developed to link the production of a product with consumer needs and to focus the resources of all departments—research, design, production, marketing—in a cooperative effort to meet those needs. The Deming Cycle proceeds as follows:

1. Conduct consumer research and use it in planning the product (plan).
2. Produce the product (do).
3. Check the product to make sure it was produced in accordance with the plan (check).
4. Market the product (act).
5. Analyze how the product is received in the marketplace in term of quality, cost, and other criteria.

### **Deming's 14 Points**

Dr. Deming's philosophy is both summarized and operationalized by his Fourteen Points (the 14 Points). He had developed the following 14 Points as a theory for management for improvement of quality, productivity, and competitive position.

1. Create and Publish the Aims and Purposes of the Organization
2. Learn the New Philosophy
3. Understand the Purpose of Inspection
4. Stop Awarding Business Based on Price Alone
5. Improve Constantly and Forever the System
6. Institute Training
7. Teach and Institute Leadership
8. Drive Out Fear, Create Trust, and Create a Climate for Innovation
9. Optimize the Efforts of Teams, Groups, and Staff Areas
10. Eliminate Exhortations for the Work Force
11. a) Eliminate Numerical Quotas for the Work Force  
b) Eliminate management by Objective
12. Remove Barriers that Rob People of Pride of Workmanship
13. Encourage Education and Self-improvement for Everyone
14. Take action to Accomplish the Transformation

### **Deming's Seven Deadly Diseases**

The 14 Points summarize Deming's views on what a company must do to effect a positive transition from business as usual to world-class quality. His Seven Deadly Diseases summarize Deming's views on factors that can inhibit such a transformation. The Seven Deadly Diseases that are pertinent to most U.S. firms identified by Dr. Deming are as follows:

1. Lack of constancy of purpose to plan products and services that have a market sufficient to keep the company in business and provide jobs.
2. Emphasis on short-term profits; short-term thinking that is driven by a fear of unfriendly takeover attempts and pressure from bankers and shareholders to produce dividends.
3. Personal review systems for managers and management by objectives without providing methods or resources to accomplish objectives. Performance evaluations, merit ratings, and annual appraisals are all part of this disease.
4. Job hopping by managers.
5. Using only visible data and information in decision-making with little or no consideration given to what is not known or cannot be known.
6. Excessive medical costs.
7. Excessive costs of liability driven by lawyers that work on contingent fees.



## **TQM Gurus - Juran's Contributions**

### **Juran's Three Basic Steps to Progress**

Juran's Three Basic Steps to Progress, in his opinion, are steps that companies must take in order to achieve world-class quality. They are listed as follows:

1. Achieve structured improvements on a continual basis combined with dedication and a sense of urgency.
2. Establish an extensive training program.
3. Establish commitment and leadership on the part of higher management.

### **Juran's Ten Steps to Quality Improvement**

Juran's Ten Steps to Quality Improvement are listed below. As compared to Deming's 14 Points, there are some overlap between the two.

1. Build awareness of both the need for improvement and opportunities for improvement.
2. Set goals for improvement.
3. Organize to meet the goals that have been set.
4. Provide training.
5. Implement projects aimed at solving problems.
6. Report progress.
7. Give recognition.
8. Communicate results.
9. Keep score.
10. Maintain momentum by building improvement into the company's regular systems.

### **The Pareto Principle**

The Pareto Principle is sometimes called the 80%/20% rule : 80% of the trouble comes from 20% of the problems. Though named for the economist Vilfredo Pareto, it was Dr. Juran who applied the idea to management. The Pareto Principle—that 80 percent of the trouble comes from 20 percent of the problem—espoused by Juran shows up in the views of most quality experts, although often by other names. According to this principle, organizations should concentrate their energy on eliminating the vital few sources that cause the majority of problems. Further, both Juran and Deming believe that systems that are controlled by management are the systems in which the majority of problems occur.

### **The Juran Trilogy**

The Juran Trilogy summarizes the three primary managerial functions. Juran's views on these functions are explained as follows:

#### *Quality Planing*

Quality planning involves developing the products, systems, and processes to meet or exceed customer expectations. The following steps are required:

1. determine who the customers are.
2. Identify the needs of customers.
3. Develop products with features that respond to customer needs.
4. Develop systems and processes that allow the organization to produce these features.
5. Deploy the plans to operational level.

#### *Quality Control*

The control of quality involves the following steps:

1. Assess actual performance.
2. Compare performance with goals.
3. Act on differences between performance and goals.

#### *Quality Improvement*

The improvement of quality should be ongoing and continual. Quality improvement involves the following steps:

1. Develop the infrastructure necessary to make annual quality improvements.
2. Identify specific areas in need of improvement and implement improvement projects.
3. Establish a project team with responsibility for completing each improvement project.
4. Provide teams with what they need in order to be able to diagnose problems to determine root causes, develop solutions, and establish controls that will maintain gains made.



## **TQM Gurus - Crosby's Contributions**

### **Crosby's Fourteen Steps to Quality improvement**

Crosby's Fourteen Steps to Quality improvement are listed as follows:

1. Make it clear that management is committed to quality for the long term.
2. Form cross-departmental quality teams.
3. Identify where current and potential problems exist.
4. Assess the cost of quality and explain how it is used as a management tool.
5. Increase the quality awareness and personal commitment of all employees.
6. Take immediate action to correct problems identified.
7. Establish a zero defects program.
8. Train supervisors to carry out their responsibilities in the quality program.
9. Hold a Zero defects Day to ensure all employees are aware there is a new direction.
10. Encourage individuals and teams to establish both personal and team improvement goals.
11. Encourage employees to tell management about obstacles they face in trying to meet quality goals.
12. Recognize employees who participate.
13. Implement quality councils to promote continual communication.
14. Repeat everything to illustrate that quality improvement is a never-ending process.

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